CENTER FOR IRRIGATION TECHNOLOGY

Agricultural Peak Load Reduction Program
Incentive Grant Payment Application and Contract

Project Category 2 - Pump Repair/Retrofit

IMPORTANT!! - Please read these important notes:

1. To be eligible for a grant, **the Grant Administrator has to have knowledge of this project before you make payment for the project**. You can call or fax the Grant Administrator at the phone numbers noted in the "How to Apply" section below, or make sure that this form is delivered to the Grant Administrator before you make payment.

2. All conditions of the Agricultural Peak Load Reduction Program apply. You should obtain a copy of the Program Description and read it. Call the Grant Administrator at (866) 297-3029 or go to the Center for Irrigation Technology's web site at WWW.CATI.CSUFRESNO.EDU/CIT/LOAD_REDUCTION.

3. This is both an application and a contract. Please read the statements and representations on all pages carefully.

For an Applicant to be eligible the following conditions apply (refer to the Program Description for all eligibility criteria):

1. Applications for incentive grant payments under this Program can be made by any electric account that is classified as Agricultural by any utility plus the following business types:
   - Water Agencies/Irrigation Districts - any public or private agency engaged in the delivery of water to agricultural water users and/or removal of water from agricultural land.
   - Confined Animal Feeding Operations (poultry houses, hog farms, feed lots, dairies, rendering plants)
   - Greenhouses/Nurseries
   - Food processors and others handling or processing agricultural products or commodities
   - Cold Storage or refrigerated warehouses used for agricultural commodities
   - Agricultural and commodity non-profit organizations serving agricultural customers
2. The pump must be an electric-powered agricultural water pump and pumping water at the time of repair/retrofit.
3. Grants will be made for pump repairs, pump bowl/impeller lining, motor or pump replacement and other actions to improve pump efficiency (not to include motor rewinding, unless it is necessary for proper operation of a VFD control). Also, well cleaning that reduces draw down and removal/replacement of valves and fittings with high-pressure losses will be considered. To qualify for the incentive for motor replacement the new motor has to be rated "Premium High Efficiency".
4. Efficiency improvement work can be contracted or performed wholly or partially in-house if such capability exists. For purposes of grant limit, in-house rates cannot exceed typical rates charged by pump repair contractors.

How to Apply:

1. Read, fill in the required information, and sign PAGE 2, the Contract.
2. Calculate the estimated incentive grant payment on PAGE 3. Note the documentation requirements. You may want to wait for an after-repair pump test to be performed. **Again, make sure that the Administrator knows about this project before you pay any bills.** Contacting the Grant Administrator by phone or fax is acceptable.
3. Fill in the project information required on PAGE 4.
4. Fill out, detach, and **keep** the Certificate of Project Completion on PAGE 5.
5. Attach the last 12 month's utility billing to the Application if using the last 12 months to calculate your grant. You are required to submit the next 12 month's utility bills when they become available if you choose to use an estimate of the next 12 month's energy use in calculating your grant.
6. Attach a copy of any pump tests that are required to the Application. Pump tests must be performed by a Participating Pump Test Company. Contact the Grant Administrator to obtain a list of these companies.
7. Sign the Application, make a copy, and mail to: Agricultural Peak Load Reduction Program
   Center for Irrigation Technology
   5370 North Chestnut Avenue, M/S OF18
   Fresno, CA 93740-8021
   (866) 297-3029
8. When the project is complete, gather copies of all invoices marked "paid", attach to the Certificate of Project Completion (see Step 4.) and mail the package to the Grant Administrator. The grant payment will be made within 30 days of receipt of the Certificate by the Grant Administrator. Note that if you choose option 2 on page 3 or choose to use an estimate of the next 12 month's energy use, 50% of the grant will be paid upon receipt of the Certificate and 50% upon verification of the next 12 month's energy use or the amount of water pumped in the next 12 months.

PAGE 2 - Contract

The following is an Agreement between the CALIFORNIA STATE UNIVERSITY, FRESNO FOUNDATION ("FOUNDATION") as Grant Administrator for the Agricultural Peak Load Reduction Program on behalf of the State of California and you, the "APPLICANT".

Definitions

"Equipment purchased and installed", "Equipment" – may mean new equipment, machinery or software, or repair or retrofit of existing equipment, machinery, or software.
"Energy benefits" – kiloWatt-hour use reductions or kiloWatt demand reductions, either on or off-peak as required.
"Applicant" – the person or business entity responsible for submitting this Application.

Agreement Clauses

I certify that I am an eligible Applicant and that this is an eligible pump repair/retrofit project under the terms of the Agricultural Peak Load Reduction Program ("the Program"). I further certify that I purchased and installed, or plan to purchase and install, the equipment indicated on Page 4 of this Application. I further certify that this will be for use at my place of business and not for resale.

I will supply documentation establishing paid proof-of-purchase. This will be done by attaching all invoices marked "PAID" to the Certificate of Project Completion (found on PAGE 5 of this Application) and submitting the Certificate to the Foundation.

I have attached documentation, or will supply documentation, establishing electricity use and pump performance as required by the terms of the Program and the option that I choose for calculating the incentive grant payment. I further agree that the actual incentive grant payment cannot be more than the estimated grant incentive payment on this Application- however, it may be less depending on my actual energy use and actual improvement in pumping plant performance.

I agree to on-site verification of the purchase and installation of equipment by the California Energy Commission or their Agent.

I certify that no Public Goods Funds have been or will be received in connection with the equipment purchased and installed.

I agree that I am solely responsible for the economic and technical feasibility, operational capability, and reliability of the equipment purchased and installed.

I understand that the Incentive Grant Payment is based on related energy benefits over the life of the equipment. I agree that if I do not provide these benefits through September 30, 2004 I will refund a prorated amount of the incentive grant payment to the Foundation based on the time that I did provide these benefits.

I certify that the information on this Application is true and correct.

Tax Liability

Grant payments are taxable and will be reported to the IRS unless Applicant is exempt. The Foundation will report your grant payment as income to Applicant unless Applicant has checked corporation or exempt tax status below. Applicant is urged to consult Applicant's tax advisor concerning the taxability of rebates. Neither the Foundation nor the California Energy Commission is responsible for any taxes that may be imposed on Applicant's business as a result of your receipt of this payment.

Applicant Name (print):_____

Applicant Signature: _____ Application Date: _____

Federal Tax ID Number: _____ Tax Status: Individual Corporate Non-Corporate Partnership Exempt

Company Name: _____

Contact Person Name: _____ Phone :_____ Fax: _____

Full Address of Pump Location: _____

_____

Utility (PG&E/SCE/SDGE/etc.) :_____ Meter Number:_____ Account Number: _____

Check should be made payable to and mailed to:

Name: _____

Address:_____

City:_____ State_____ Zip:_____

PAGE 3 - Calculation of the Grant **Applicant:_____**
(see PAGE 6 for an example) **Utility: _____ Meter: _____**

1. Complete Section A. Note the requirements for providing utility billing records.
2. Complete Section B. You will submit all paid invoices with the Certificate of Project Completion (PAGE 5).
3. Fill out one (and only one) option within Section C. Note the requirements for providing copies of pump tests for options 1 and 2. **Pump tests need to be done by a Participating Pump Test Company.** Contact the Grant Administrator at (866) 297-3029 for a list of these companies.
4. Compare Line 3 of Section B and Line 4 of the option chosen in Section C. Choose the lower of these two and…

fill in here -> $ _____ <- This is your estimated incentive grant payment.

Section A - 12 Months Energy Use

1. Annual kWh usage (kWh): _____ based on (circle one): Previous 12 months Estimated Next 12 months
   - If using previous 12 month's energy use submit 12 month's utility billing with this application.
   - If using next 12 month's energy use, attach a separate sheet explaining your estimate - you will have to submit the next 12 month's utility billing when all 12 month's bills are available.

Section B - Estimated/Actual Project Cost

2. Enter the estimated (or actual) project cost $_____
3. Multiply line 2. by .65 and enter here: $_____

Section C

Option 1 - compares pre-repair pump efficiency to after-repair pump efficiency – you may want to use this option if you have improved the pump efficiency by more than a factor of 25%

-You need to submit copies of test results for both the pre-repair tests and after-repair tests when choosing this option

a. Enter the pre-repair operating plant efficiency. This is "Pre-OPE" in the equation on line 4. _____
b. Enter the estimated after-repair operating plant efficiency. This is "Post-OPE" in the equation on line 4. _____
c. Enter the 12 month's energy use you have chosen from line 1. This is "kWh" in the equation on line 4. _____
d. Calculate the grant under this option using the equation on line 4:

4. .10 * (kWh - (kWh * Pre-OPE / Post-OPE)) = $ _____

.10 * (_____ - (_____ * _____ / _____)) = $ _____

Option 2 - compares pre-repair kiloWatt-hours per acre-foot to after-repair kiloWatt-hours per acre-foot - you may want to use this option if you have removed pump stages or changed the discharge piping/valving significantly

- You need to submit copies of test results for both the pre-repair tests and after-repair tests when choosing this option.
- You need to submit justification for the estimate of annual acre-feet pumped.

a. Enter the pre-project kiloWatt-hours/acre-foot. This is "Pre-kWhAF" in the equation on line 4. _____
b. Enter the estimated post-project kiloWatt-hours/acre-foot. This is "Post-kWhAF" in the equation on line 4. _____
c. Enter the annual acre-feet pumped. This is "AF" in the equation on line 4. _____
d. Calculate the grant under this option using the equation on line 4:

4. .10 * (AF * (Pre-kWhAF - Post-kWhAF)) = $ _____

.10 * (_____ * (_____ - _____)) = $ _____

Option 3 - assumes 25% improvement in pumping plant performance - this is the simplest calculation and requires no additional documentation - HOWEVER, you must replace/repair either or both of the impeller and bowl of the pump

a. Enter the 12 month's energy use you have chosen from line 1. This is "kWh" in the equation on line 4. _____
b. Calculate the grant under this option using the equation on line 4:

4. .10 * .25 * kWh = $ _____

.10 * .25 * _____ = $ _____

PAGE 4 - Project Information (must be completed) **Applicant: _____**
Utility: _____ Meter: _____

1. Motor: Horsepower _____ Speed (rpm) _____ Voltage _____

2. Motor Efficiency Rating (if known): Standard High efficiency Premium high efficiency

3. Has this motor been rewound? Yes No

- If "Yes" how many years ago? ____, how many times? _____

4. Is this motor controlled by a variable frequency drive? Yes No

5. Pump Type: Water Well Vertical Turbine Horizontal Centrifugal Submersible
Short-coupled Vertical/Slant Turbine

6. Impeller Type: Unknown Axial/Open Semi-Open Closed

7. Pump Use: Irrigation well Human/livestock well Pressure boost
Low-lift canal/ditch Tailwater return Other:_____

8. Current overall pumping plant efficiency (OPE) (if known): _____

9. Estimated overall pumping plant efficiency after repair/retrofit (OPE) (if estimated): _____

10. Current kiloWatt-hours per acre-foot pumped (kWh/AF) (if known): _____

11. Estimated kiloWatt-hours per acre-foot after repair/retrofit (OPE) (if estimated): _____

12. Repair/Retrofit Type (check all that apply):

[ ] Motor replacement (describe type, efficiency rating)_____
[ ] Motor rewind
[ ] Bearing/spider replacement
[ ] Packing replacement
[ ] Impeller repair
[ ] Impeller Trimming
[ ] Impeller replacement (describe type, model)_____
[ ] Bowl/Volute repair
[ ] Bowl/Volute replacement (describe type, model) _____
[ ] Adding stage(s) (if a turbine)
[ ] Removing stage(s)
[ ] Increasing the column pipe diameter
[ ] Modification of the immediate pump discharge piping or valving to reduce pressure requirements.
[ ] Well clean/modification to reduce drawdown (describe fully on a separate sheet)

Other:_____

13. Did you repair/retrofit this pump because of the results from a pump efficiency test? YES NO

14. If answering YES to 13., was the test performed by:

[ ] A Peak Load Reduction Program Participating Pump Test Company
[ ] Another pump tester

15. If answering YES to 13., how long after the test did you repair/retrofit the pump? _____ months

16. Estimated completion date of repair/retrofit: _____

PAGE 5 - Certificate of Project Completion

1. Fill out the Certificate of Project Completion with the same information as on the Application, except for the Application number.
2. Keep a photocopy of this Certificate and the entire Application.
3. When the pump repair is complete:
    a) Attach all invoices marked "Paid" to this Certificate.
    b) Fill in the Application number assigned by the Grant Administrator (refer to your letter of Approval)
    c) Send the invoices and Certificate to the Grant Administrator:

Agricultural Peak Load Reduction Program
Center for Irrigation Technology
5370 North Chestnut Avenue, M/S OF18
Fresno, CA 93740-8021
(866) 297-3029

CERTIFICATION OF PROJECT COMPLETION and AUTHENTICITY AND ACCURACY OF SUBMITTED INVOICES

The Applicant hereby certifies that the pump repair/retrofit project has been completed and the pump is operational.

The Applicant hereby certifies that all invoices submitted for Grant Payments are original invoices (or copies of original invoices) that are authentic and accurately reflect costs that were incurred by the Applicant on or after the Application Date, solely in connection with the Applicant's submitted pump repair/retrofit project. The Applicant further certifies that all invoices submitted for Grant Payments do not overstate the costs incurred by the Applicant or reflect costs not incurred in direct connection with the Applicant's pump repair/retrofit project.

Applicant Name (print):_____ **Application Number: 02-**_____

Applicant Signature: _____ **Application Date:** _____

Company Name: _____

Contact Person Name: _____ Phone :_____ Fax: _____

Full Address of Pump Location: _____

_____

Completion Date of repair/retrofit: _____

Utility (PG&E/SCE/SDGE/etc.) :_____ Meter Number:_____ Account Number: _____

PAGE 6 - Examples of Calculating an Incentive Grant

In the example below, Option 1 has been chosen to calculate the grant. Since the "Previous 12 months" has been chosen as the basis for the calculation, utility bills for the previous 12 months need to be submitted along with the application. Also, both the pre-repair and the after-repair pump test results must be submitted. In most situations, each Option will result in a different grant. You should try each option to choose the one that results in the highest grant for your project. ***However, only use one option when submitting the Application!***

Compare Line 3 of Section B and Line 4 of the option chosen in Section C. Choose the lower of the two and…

Fill in here - $ __3,508.77_____. This is your estimated incentive grant payment.

Section A - 12 Months Energy Use

1. Annual kWh usage (kWh): _**100,000**_ based on (circle one): (Previous 12 months) Estimated Next 12 months
   - If using previous 12 month's energy use submit 12 month's utility billing with this application.
   - If using next 12 month's energy use, attach a separate sheet explaining your estimate - you will have to submit the next 12 month's utility billing when all 12 month's are available.

Section B - Estimated/Actual Project Cost

2. Enter the estimated (or actual) project cost $__**8,000**___

3. Multiply line 2. by .65 and enter here: $__**5,200**__

Section C

Option 1 - based on a comparison of pre-repair pump efficiency to after-repair pump efficiency – you may want to use this option if you have improved the pump efficiency by more than a factor of 25%

-You need to submit copies of test results for both the pre-repair tests and after-repair tests when choosing this option

a. Enter the pre-repair operating plant efficiency. This is "Pre-OPE" in the equation on line 4. __**37%**____
b. Enter the estimated after-repair operating plant efficiency. This is "Post-OPE" in the equation on line 4. __**57%**____
c. Enter the 12 month's energy use you have chosen from line 1. This is "kWh" in the equation on line 4. _**100,000**___
d. Calculate the grant under this option using the equation on line 4:

4. .10 * (kWh - (kWh * Pre-OPE / Post-OPE)) = $ _____

.10 * (__**100,000**___ - (__**100,000**____ * ____**37**_____ / ____**57**_____)) = $ __**3,508.77**_____

Option 2 - compares pre-repair kiloWatt-hours per acre-foot to after-repair kiloWatt-hours per acre-foot - you may want to use this option if you have removed pump stages or changed the discharge piping significantly

- You need to submit copies of test results for both the pre-repair tests and after-repair tests when choosing this option.
- You need to submit justification for the estimate of annual acre-feet pumped.

a. Enter the pre-project kiloWatt-hours/acre-foot. This is "Pre-kWhAF" in the equation on line 4. _____
b. Enter the estimated post-project kiloWatt-hours/acre-foot. This is "Post-kWhAF" in the equation on line 4. _____
c. Enter the annual acre-feet pumped. This is "AF" in the equation on line 4. _____
d. Calculate the grant under this option using the equation on line 4:

4. .10 * (AF * (Pre-kWhAF - Post-kWhAF)) = $ _____

.10 * (_____ * (_____ - _____)) = $ _____

Option 3 - assumes 25% improvement in pumping plant performance - this is the simplest calculation and requires no additional documentation - HOWEVER, you must replace/repair either or both of the impeller and bowl of the pump

a. Enter the 12 month's energy use you have chosen from line 1. This is "kWh" in the equation on line 4. _____
b. Calculate the grant under this option using the equation on line 4:

4. 10 * .25 * kWh = $ _____

.10 * .25 * _____ = $ _____